CLAIMS

1. A system for inferring geological classes from oilfield well input data comprising a neural network for inferring class probabilities, characterized in that said system further comprises means for integrating class sequencing knowledge and optimising said class probabilities according to said sequencing knowledge.

2. The system of claim 1, wherein the means for integrating class sequencing knowledge and optimising said class probabilities according to said sequencing knowledge comprises a hidden Markov model.

3. An automated system for inferring geological classes from oilfield well input data, comprising a data input vector, a neural network trained to infer from said input vector a class sequence or class probability vector, and a modifier for correcting said class sequence or class probability vector using prior knowledge of class sequence or class probability.

4. An automated system of claim 3, wherein the modifier uses the prior knowledge of class probability distribution and class transition probability.

5. An automated system of claim 3, wherein the modifier includes a Viterbi sequence optimisation.

6. An automated system of claim 3, wherein the modifier includes a Bayesian based probability calculator.

7. An automated system of claim 3, wherein the modifier includes a Bayesian based probability calculator and a Viterbi sequence optimisation.

8. A method for inferring geological classes from oilfiled well input data, comprising the following steps:

inferring class probabilities with a neural network; and

integrating class sequencing knowledge and optimising said class probabilities according to said sequencing knowledge.

9. The method of claim 8, wherein the integrating class sequencing knowledge and optimising said class probabilities according to said sequencing knowledge is achieved according to a hidden Markov model.

10. A method for inferring geological classes from oilfield well input data, comprising the steps of generating a data input based on said well input data; using a neural network to generate a class sequence or class probability vector inferred from said input; and correcting said class sequence or class probability vector using prior knowledge of class sequence or class probability.

11. The method of claim 10, wherein prior knowledge of class probability distribution and class transition probability is used to correct the class sequence or class probability vector.

12. The method of claim 10, wherein the correction includes a Viterbi sequence optimisation.

13. The method of claim 10, wherein the correction includes a Bayesian based probability calculation.

14. The method of claim 10, wherein the correction includes a Bayesian based probability calculation and a Viterbi sequence optimisation.